

What is Claimed is:

1. 1.—A printed wiring board comprising:

~~— a base substrate;~~

~~— a land conductor layer provided on said base substrate at least in part thereof;~~

~~— an insulating layer provided on said base substrate and said land conductor layer, having a via hole reaching said land conductor layer, and containing glass fibers;~~

~~— a via conductor layer covering a surface of said via hole and a surface of said insulating layer at least in the vicinity of an opening of said via hole and connected to said land conductor layer; and~~

~~— a block layer provided between the surface of said via hole and said via conductor layer for preventing migration to said via conductor layer through the glass fibers inside said insulating layer.~~

2. —The printed wiring board according to claim 1, wherein ~~said block layer covers an inner wall of said insulating layer at least over a range from an uppermost end to a lowermost end where said glass fibers inside said insulating layer exist.~~

3. —The printed wiring board according to claim 2, wherein ~~a lower end of said block layer is located above a surface of said land conductor layer.~~

a base substrate;

a land conductor layer provided on said base substrate at least in part thereof;

an insulating layer provided on said base substrate and said land conductor layer, said insulating layer having a via hole reaching said land conductor layer, and

containing glass fibers;

a via conductor layer covering a surface of said via hole and a surface of said insulating layer at least in the vicinity of an opening of said via hole, said via conductor layer being connected to said land conductor layer; and

a block layer provided between the surface of said via hole and said via conductor layer for preventing migration to said via conductor layer through the glass fibers inside said insulating layer, said block layer covering the inner wall of said insulating layer at least over a range from the uppermost end to the lowermost end where said glass fibers inside said insulating layer exist, and the lower end of said block layer is located above the surface of said land conducting layer.

2. ~~4.~~ The printed wiring board according to claim 1, wherein said insulating layer is formed by a resin layer in which the glass fibers are buried.

~~5. The printed wiring board according to claim 1, wherein said block layer is formed by an insulating layer.~~

~~6. The printed wiring board according to claim 1, wherein said block layer is formed by a resin layer.~~

~~7. A method of manufacturing a printed wiring board, comprising the steps of:~~

~~(a) preparing a base substrate;~~

~~(b) providing a land conductor layer on said base substrate at least in part thereof;~~

3. The printed wiring board according to claim 1, wherein said block layer comprises an insulating layer.

4. The printed wiring board according to claim 1, wherein said block layer comprises a resin layer.

5. A method of manufacturing a printed wiring board, comprising the steps of:

(a) providing a base substrate;

(b) providing a land conductor layer on said base substrate at least in part thereof;

(c) providing an insulating layer containing glass fibers so as to cover said base substrate and said land conductor layer;

(d) providing a first via hole in said insulating layer over said land conductor layer; ~~via hole in said insulating layer, said via hole reaching said land conductor layer;~~

(e) providing a second via hole in said first via hole, said second via hole reaching said land conductor layer, and block layer on a surface of said first via hole for preventing migration through the glass fibers inside said insulating layer; and ~~and~~

(f) providing a via conductor layer covering ~~said block layer and~~ a surface of said second via hole, said block layer, insulating layer at least in the vicinity of an opening of said first via hole and connected to said land conductor layer, step (e) of providing said second

via hole and said block layer including the steps of:
layer.

8. ~~A method of manufacturing a printed wiring board, comprising the steps of:~~

- ~~(a) preparing a base substrate,~~
- ~~(b) providing a land conductor layer on said base substrate at least in part thereof,~~
- ~~(c) providing an insulating layer containing glass fibers so as to cover said base substrate and said land conductor layer,~~
- ~~(d) providing a first via hole in said insulating layer over said land conductor layer,~~
- ~~(e) providing a block layer on a surface of said first via hole for preventing migration through the glass fibers inside said insulating layer,~~
- ~~(f) providing a second via hole in said first via hole where said block layer is provided, said second via hole reaching said land conductor layer, and~~
- ~~(g) providing a via conductor layer covering a surface of said second via hole, said block layer, and a surface of said insulating layer at least in the vicinity of an opening of said first via hole and connected to said land conductor layer.~~

9. ~~A method of manufacturing a printed wiring board, comprising the steps of:~~

- ~~(a) preparing a base substrate,~~
- ~~(b) providing a land conductor layer on said base substrate at least in part thereof,~~
- ~~(c) providing an insulating layer containing glass fibers so as to cover said base substrate and said land conductor layer,~~
- ~~(d) providing a first via hole in said insulating layer over said land conductor layer,~~
- ~~(e) providing a second via hole in said first via~~

hole, said second via hole reaching said land conductor layer, and providing a block layer on a surface of said first via hole for preventing migration through the glass fibers inside said insulating layer; and

~~(f) providing a via conductor layer covering a surface of said second via hole, said block layer, and a surface of said insulating layer at least in the vicinity of an opening of said first via hole and connected to said land conductor layer.~~

10. ~~The method according to claim 9, wherein the step (c) of providing said second via hole and said block layer comprises the steps of:~~

~~filling said first via hole with an insulating material; and~~

~~removing a columnar portion, extending from a surface of said filled insulating material to reach a surface of said land conductor layer, of said filled insulating material and said insulating layer between a bottom of said first via hole and the surface of said land conductor layer so as to leave said filled insulating material of a predetermined thickness on the surface of said first via hole.~~

11. ~~The method according to claim 8 or 9, wherein a lower end of said first via hole is located below a lowermost portion of said glass fibers inside said insulating layer and above a surface of said land conductor layer.~~

~~{Document Type} Abstract~~

~~{Abstract}~~

~~{Object} To provide a printed wiring board that can prevent occurrence of a short.~~

~~{Constitution} A printed wiring board 100 has a via land 2A, a glass epoxy resin layer 3, a via conductor 6, and a block layer 4A. The via land 2A is formed on a core layer 1. The glass epoxy resin layer 3 is formed on the core layer 1 and the via land 2A. The via conductor 6 is formed on the via land 2A. The block layer 4A is formed on the via land 2A, between the via conductor 6 and the glass epoxy resin layer 3.~~

~~{Selected Drawings} Fig. 1filling said first via hole with an insulating material; and~~

~~removing the columnar portion from the surface of said insulating material to the surface of said land conductor layer of said filled insulating material and said insulating layer between the base of said first via hole and the surface of said land conductor layer, so as to leave the insulating material of given width on the surface of said first via hole.~~

6. The method according to claim 5, wherein a lower end of said first via hole is located below a lowermost portion of said glass fibers inside said insulating layer and above a surface of said land conductor layer.